Problems about .FIG
Posted by waltz - 2010/03/04 22:20

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Hi, Shea

This is Wenming Nie from EPA, Las Vegas. I am using AGWA2 to simulate channel discharge (FLOW_OUT in output.rch file) in San Pedro and Santa Cruz watersheds. I have two problems:

1) The .FIG file can not be read by SWAT when I use relatively small CSA values to discretize subbasins. There is a poster in this forum discussing this issue.

Your solution: "Anyway, I took a look at the simulation you uploaded and there was a problem with the wgn05.FIG file. I'm not sure what would have caused it, but on the 23 line of the file "subbasin 1" repeats a bunch of times and the lines ends with "add 5 12 2 1". All that should be on that line is the "add 5 12 2 1". I deleted all the "subbasin 1" repeats and ran the model and it worked. To run AGWA from the toolbar, you'll need to do what I did and edit the FIG file. After that, running it from the toolbar should work."

You are right, the model run after deleting these extra lines. However, the simulation does not apply to the deleted subbasins. As an example, the Santa Cruz watershed were divided into 138 subbasins, but only 124 subbasins were included in .FIG file (and a line with repeated subbasin1, as you noticed). The number of repeated "subbasin1" is equal to 138 minus 124 (the number of missing subbasins). If I simply deleted the repeated "subbasin 1", then the simulation will not apply to the whole watershed that I want to simulate (only simulate the first 124 subbasins). In addition, only 124 "rte" were included in .FIG file too.

In some posters, you suggest to change the CSA value, in order to make the model run. However, in some research, we have to divide the watershed into certain subbasins (to match the 12-digit HUCs). It means the CSA value is unchangeable in some studies. For research purpose, we have to use a certain CSA value. However, the SWAT may not run when use this CSA value in AGWA. My research is an example (I need to use 5000 Ha CSA value to divide my watershed into 138 subbasins, but SWAT do not run).

Hence, would you please look at the AGWA code about the generation of .FIG file? It will be great, if this problem can be fixed.

The "swat2003_mod.exe" is not included in the zip file to reduce the file size.

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Re:Problems about .FIG
Posted by waltz - 2010/03/04 22:28

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The zip file was not uploaded successfully at the first time.
http://www.tucson.ars.ag.gov/agwa/images/fbfiles/files/scz.zip

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Re:Problems about .FIG
Posted by waltz - 2010/03/05 01:11

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I noticed that all types of input files are not completed. The watershed was divided into 138 subbasins, however, there are only 124 input files, such as .gw, .mgt, and .hru files.

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Re:Problems about .FIG
Posted by waltz - 2010/03/05 01:11

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